



The questions assume concepts outlined in earlier papers. They increase in complexity throughout the paper and encourage the use of higher-order thinking skills.

### PAPER G & H



#### NUMBER & ARITHMETIC

#### ALGEBRA & PATTERNS

#### MEASURES & UNITS

#### SPACE & GEOMETRY

#### STATISTICS & PROBABILITY

Questions may require students to:

##### NUMBER

- apply index laws involving positive and zero indices
- convert terminating and recurring decimals to fractions

##### ARITHMETIC

- use order of operations with integers and rational numbers
- solve ratio and rates problems

##### PATTERNS

- continue patterns involving recurring decimals

##### ALGEBRA

- expand and simplify expressions
- factorise linear expressions
- solve linear equations graphically and algebraically
- change the subject of an equation

##### MEASURES

##### MEASUREMENT

- calculate areas and perimeters of a kite, rhombus and trapezium
- calculate circumference and areas of circles
- calculate volumes and surface areas of right prisms
- apply Pythagoras' Theorem to solve right-triangle problems

##### SPACE

##### SHAPE

- use angle properties of shapes

##### GEOMETRY

- apply congruence conditions for triangles to solve problems
- use ratio and scale factor of similar figures
- apply angle sum of polygons to solve problems

##### PROBABILITY

- find probabilities of events involving 'and', 'or' and 'at least'

##### STATISTICS

- interpret two-way tables and venn diagrams
- recognise effect of outliers on measures of location and spread

### LEARN MORE

ICAS Paper to Year Level Conversion Table [www.eaa.unsw.edu.au/icas/paper-to-year-level-equivalent-table.asp](http://www.eaa.unsw.edu.au/icas/paper-to-year-level-equivalent-table.asp)